

CSA614

PNP PLASTIC POWER TRANSISTOR

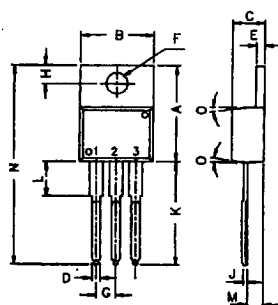
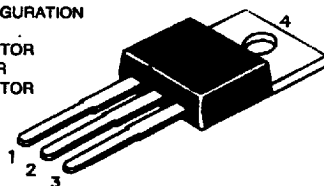
CSD288

NPN PLASTIC POWER TRANSISTOR

Low frequency Power Amplifier and Power Regulator

## PIN CONFIGURATION

1. BASE
2. COLLECTOR
3. EMITTER
4. COLLECTOR



ALL DIMENSIONS ARE IN M.M.

| DIM | MIN   | MAX   |
|-----|-------|-------|
| A   | 14,42 | 16,51 |
| B   | 9,63  | 10,67 |
| C   | 3,56  | 4,83  |
| D   | —     | 0,90  |
| E   | 1,15  | 1,40  |
| F   | 3,75  | 3,88  |
| G   | 2,29  | 2,79  |
| H   | 2,54  | 3,43  |
| J   | —     | 0,56  |
| K   | 12,70 | 14,73 |
| L   | —     | 6,35  |
| M   | 2,03  | 2,92  |
| N   | —     | 31,24 |
| O   | 7     | DEG   |

## ABSOLUTE MAXIMUM RATINGS

|                                                        |             | 614      | 288              |
|--------------------------------------------------------|-------------|----------|------------------|
| Collector-base voltage (open emitter)                  | $V_{CBO}$   | max. 80  | 80 V             |
| Collector-emitter voltage (open base)                  | $V_{CEO}$   | max. 55  | 55 V             |
| Collector current                                      | $I_C$       | max. 3.0 | A                |
| Total power dissipation up to $T_C = 25^\circ\text{C}$ | $P_{tot}$   | max. 25  | W                |
| Junction temperature                                   | $T_j$       | max. 150 | $^\circ\text{C}$ |
| Collector-emitter saturation voltage                   |             |          |                  |
| $I_C = 1 \text{ A}; I_B = 0.1 \text{ A}$               | $V_{CEsat}$ | max. 0.5 | 1.0 V            |
| D.C. current gain                                      |             |          |                  |
| $I_C = 0.5 \text{ A}; V_{CE} = 5 \text{ V}$            | $h_{FE}$    | min. 40  |                  |
|                                                        |             | max. 240 |                  |

RATINGS (at  $T_A = 25^\circ\text{C}$  unless otherwise specified)

| Limiting values                       |           | 614      | 288  |
|---------------------------------------|-----------|----------|------|
| Collector-base voltage (open emitter) | $V_{CBO}$ | max. 80  | 80 V |
| Collector-emitter voltage (open base) | $V_{CEO}$ | max. 55  | 55 V |
| Emitter-base voltage (open collector) | $V_{EBO}$ | max. 5.0 | V    |

|                                                        |                  |      |             |                  |
|--------------------------------------------------------|------------------|------|-------------|------------------|
| Collector current                                      | $I_C$            | max. | 3.0         | A                |
| Total power dissipation up to $T_C = 25^\circ\text{C}$ | $P_{\text{tot}}$ | max. | 25          | W                |
| Junction temperature                                   | $T_j$            | max. | 150         | $^\circ\text{C}$ |
| Storage temperature                                    | $T_{\text{stg}}$ |      | -65 to +150 | $^\circ\text{C}$ |

CHARACTERISTICS

$T_{\text{amb}} = 25^\circ\text{C}$  unless otherwise specified

|                                                                   |                    |      | 614 | 288           |
|-------------------------------------------------------------------|--------------------|------|-----|---------------|
| Collector cutoff current<br>$I_E = 0; V_{CB} = 50\text{V}$        | $I_{CBO}$          | max. | 50  | $\mu\text{A}$ |
| Breakdown voltages<br>$I_C = 10\text{ mA}; I_B = 0$               | $V_{CEO}$          | min. | 55  | V             |
| $I_C = 500\text{ }\mu\text{A}; I_E = 0$                           | $V_{CBO}$          | min. | 80  | V             |
| $I_E = 500\text{ }\mu\text{A}; I_C = 0$                           | $V_{EBO}$          | min. | 5.0 | V             |
| Saturation voltage<br>$I_C = 1\text{ A}; I_B = 0.1\text{ A}$      | $V_{CE\text{sat}}$ | max. | 0.5 | 1.0 V         |
| D.C. current gain<br>$I_C = 0.5\text{A}; V_{CE} = 5\text{V}^{**}$ | $h_{FE}$           | min. | 40  |               |
|                                                                   |                    | max. | 240 |               |

**\*\*  $h_{FE}$  classification: R: 40-80 O: 70-140 Y: 120-240**